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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/312,479	05/17/1999	ROBERT J. HENNICK	283_237.10CPA	2665

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MARJAMA & BILINSKI LLP
250 SOUTH CLINTON STREET
SUITE 300
SYRACUSE, NY 13202

EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

MAIL DATE	DELIVERY MODE
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06/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/312,479

Applicant(s)

HENNICK ET AL.

Examiner

Thanh X. Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-71 and 73-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 59-71 and 73-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No: _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on May 11, 2007 has been entered.

Claims 59-71 and 73-79 are currently pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 59-61, 63, 64, 66-68, 70, 71, 73-75, 77 and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Azuma et al. (JP 62-139465).

Regarding claims 59-61, 63, 64, 66-68, 70, 71, 73-75, 77 and 78, Azuma et al. disclose (see Figs.) an imaging device, comprising: an image sensor subassembly including an image sensor (6) mounted on a printed circuit board (8); a substantially rigid optical subassembly (7), the optical subassembly including an optical element (5) disposed on a substantially rigid member; at least one solderable surface (rod 10 or

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hole, in 8, not labeled) formed on the optical subassembly or the circuit board defining at least one solder receiving interface between the printed circuit board and the optical subassembly; and a solder material (solder; see abstract last line) for bonding the subassemblies disposed at the solder-receiving interface. Azuma et al. also disclose (see Fig. 4) the device encapsulated in a housing (of the image reader), the device partially defining a feed path (of the web (2)). The housing of the image reader inherently serves as a handle.

4. Claims 73 and 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimura (JP 05-267629).

Regarding claims 73 and 75, Shimura discloses (see Figs.) an optical reading device comprising: an optical and image sensor assembly including an image sensor subassembly including an image sensor (12) mounted on a substantially rigid planar member (11), an optical subassembly, said optical subassembly including an optical element (19) disposed on a substantially rigid member (standoffs, not labeled), at least one solderable surface (pads 13 or wirings 17) formed on either of said optical subassembly or said substantially rigid planar member defining at least one solder receiving interface between said substantially rigid planar member and said optical subassembly, solder material (14) for bonding said subassemblies disposed at said at least one solder-receiving interface, a housing (inherent in a camera), said optical and image sensor assembly being disposed in said housing. A camera is hand held.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 62, 65, 69, 76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. in view of DelGuidice et al. (U.S. Patent 4,721,473).

Regarding claims 62, 65, 69, 76 and 79, Azuma et al. disclose the claimed invention as set forth above. Azuma et al. do not specifically disclose an irregular configuration having increased surface area as claimed. DelGuidice et al. teaches (see col. 1, lines 60-65) that an irregular solderable surface having increased surface area as claimed improves solder joint strength. It is also well known that threaded screws provide an increased surface area. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such an irregular surface or a threaded screw in the apparatus of Azuma et al. in view of DelGuidice et al. for improved strength of the solder joint as taught.

Response to Arguments

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thanh X Luu
Primary Examiner
Art Unit 2878

05/2007